

FORD · POWERTRAIN

P1656

OBD-II DIAGNOSTIC TROUBLE CODE (DTC)

P1656 · Ford

CAN Link PCM Circuit Network

P1656 on Ford vehicles indicates that the powertrain control module (PCM) has detected a communication fault on the controller area network (CAN) link that connects the PCM to other modules, often specifically the link between the PCM and the instrument cluster or another CAN node. The PCM sets this code when it cannot reliably exchange data over the CAN bus, which may be due to wiring faults, module failures, or network configuration issues.

SYSTEM

Powertrain

CODE TYPE

Ford specific

SEVERITY

Medium

FIX DIFFICULTY

Professional

AREA

**Computer and
output circuits**

Symptoms you may notice

- Illuminated check engine light or wrench light on the dashboard
- Often no symptoms besides the warning light, with the vehicle running normally
- Intermittent or complete failure of dashboard gauges and warning indicators
- No-start condition or engine stalling if the CAN link is severely disrupted
- Multiple unrelated warning lights or messages appearing simultaneously
- Reduced engine performance or limp mode in some cases

Common causes, most likely first

- 1 Damaged or corroded wiring in the CAN bus between the PCM and other modules
- 2 Faulty PCM or another module on the CAN network (e.g., instrument cluster, ABS module) causing communication disruption
- 3 Loose or corroded connectors at the PCM or other CAN nodes
- 4 Electrical interference or short circuits in the CAN wiring
- 5 Failed CAN transceiver inside the PCM or another module
- 6 Software or configuration mismatch in the PCM or other modules



How to diagnose and fix it

- 1 Use a scan tool to read all codes and check for communication with all modules to identify which CAN nodes are offline
- 2 Inspect the CAN wiring and connectors for damage, corrosion, or loose pins, especially at the PCM and instrument cluster
- 3 Measure CAN bus resistance (should be approximately 60 ohms across the two CAN lines) to check for open or short circuits
- 4 Check for power and ground supplies to the PCM and other modules on the CAN network
- 5 Perform a wiggle test on wiring and connectors while monitoring CAN communication with a scan tool
- 6 If wiring and connections are good, substitute known-good modules (PCM, instrument cluster) to isolate the faulty unit
- 7 Reprogram or replace the faulty module as needed, then clear codes and verify communication

CAN Link Faults Often Misdiagnosed

- A common cause of P1656 that technicians overlook is a failing instrument cluster, which can disrupt the CAN bus even though the engine runs fine.
- The code does not always mean the PCM is faulty; in many cases, the PCM is setting the code because another module on the network is pulling the bus down.
- Aftermarket accessories wired into the CAN bus, such as remote starters or telematics devices, can introduce interference and set this code.
- A weak battery or charging system issue can cause low voltage that disrupts CAN communication and triggers P1656 without any hard wiring fault.
- Some Ford models require a specific CAN bus termination resistor; missing or damaged terminators can cause communication errors that set this code.

Can I keep driving with P1656?

If the vehicle runs normally and only the warning light is on, you can drive it to a repair shop, but avoid long trips or towing. If the engine stalls, gauges fail, or multiple warning lights appear, stop driving and have the vehicle towed to prevent unsafe operation.

Tools that help

- OBD-II scan tool with CAN bus capability
- Digital multimeter (DMM) for resistance and voltage checks
- Wiring diagram for the specific Ford model
- Oscilloscope for CAN bus signal analysis
- Terminal pick and electrical contact cleaner



Reading P1656

- P** Powertrain: engine, transmission and emissions.
- 1** Manufacturer-specific code (Ford): its meaning depends on the make.
- 6** Computer and output circuits.
- 56** The exact fault within that area.

Often seen with

P0562 System Voltage Low · **U0001** Loss of Bus Communication · **U0100** Lost Communication With ECM/PCM A · **U0140** Lost Communication With Instrument Panel Cluster · **U0155** Lost Communication With Body Control Module

See it working

Watch the animated explainer [Car Won't Start? Step-by-Step No-Start Diagnosis](#) on Auto Veteran to see the parts involved moving.

Full guide, related articles and animations: <https://www.autoveteran.tech/dtc-codes/ford-p1656/>

